SKY PARK IN BRATISLAVA OF SLOVAKIA

GRC APPLICATION: AALBORG WHITE ® CEMI 52,5R-SR5

PROJECT DESCRIPTION

Internationally renowned studio Zaha Hadid Architects are setting their mark SKY PARK on Bratislava using glass fibre reinforced concrete (GRC) based on Aalborg White cement. Danish company BB fiberbeton A/S is the GRC producer of this project. SKY PARK is a complex project integrating 20,000m2 public park, community with more than 700 apartments and 55,000 m2 office and retail space connecting to city transportation network.

BB fiberbeton A/S has recently produced the last façade elements for the three high-rise buildings in Slovakia. GRC elements are used as part of the facade solution for the three organically shaped towers, the SKY PARK.

"The large design studio is known for its exciting forms and for constantly challenging the boundaries of architecture with an experimental design language. That is why it has been an interesting project for us. The organic shapes are exactly what can be the unique about glassfibre reinforced concrete", says co-owner Nikolaj Aalund Brandt, BB fiberbeton.

The last GRC elements have just been produced at the Danish factory outside Copenhagen. More than 220 trucks have transported the +3,000 elements made with Aalborg White cement from Denmark to Slovakia. The high-rise buildings are expected to be completed in 2020.

"We prefer Aalborg White cement for our GRC production due to its color consistency and chemical properties. High quality white cement is a key parameter for us to achieve the specific color and surface finish. We work with a lot of different surfaces and Aalborg White cement is a good starting point." Adds by Nikolaj Aalund Brandt.

SKY PARK by Zaha Hadid Architects is a development by Penta Real Estate.

The GRC material is extremely formable and durable. It is very versatile and can be suitably moulded into wide variety of complex shapes. With GRC architects have the architectural design freedom in terms of geometry, texture, and surface – without high costs.

"GRC is eco-friendly. The green production with low energy consumption and without any toxic materials ensures low CO2 per square meter. Further the light weight of the material, as it is produced in typically 12 mm thickness, and the extreme durability of GRC contributes significantly to building sustainability", says Nikolaj Aalund Brandt, BB fiberbeton.

At the factory in Denmark, they have already progressed with other projects - including facade elements for another large building project in Bratislava. Just across the street from SKY PARK.

AALBORG WHITE ® IN GRC APPLICATION

Leveraging from the very high purity and stability of Aalborg White cement, manufacturers of GRC pass high performance and color stability on to their end customers, in their finished products. High purity and stable white cement are the key to all colored products - even grey cement based architectural products are often based on white cement to achieve a constant surface color.

Chemical stability of the cement plays a paramount importance on the quality of the end concrete product. Cement is globally combined with many types of chemical admixtures for almost all applications served. The admixtures have become increasingly efficient during the years and having enormous influence on the concrete industry. This has further elevated the need for skilled workforce and extended quality control systems to be implemented at the manufacturers plant. A sprayed GRC will typically have to be highly robust to maintain its integrity as it undergoes high speed mixing, "stationary" storing in the feeding tank, pumping, spraying and troweling.

PROJECT PARTICIPANTS

GRC Precaster: BB Fiberbeton A/S
Architect: Zaha Hadid Architects
White Cement Producer: Aalborg Portland A/S

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